Graphing Hyperbolas WS Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_\_

***Do all work on a different piece of paper for credit.***

Graph the hyperbolas on graph paper, labeling all of the important information: center, foci, vertices and asymptotes.

1. 2.

3. 4.

State what type of conic is given from general form and then convert it to standard form. Then identify for Parabolas: vertex, focus, directrix and LR points

Circle: center and radius

Ellipse: center, foci, vertices, and co-vertices

Hyperbola: center, foci, vertices and asymptotes

5. -4x2+y2-16x-2y-19=0 6. 2x2-y+8x=0

7. 4x2 +9y2-16x -18y -11=0 8. 4x2+ 4y2-12x+24y-12=0

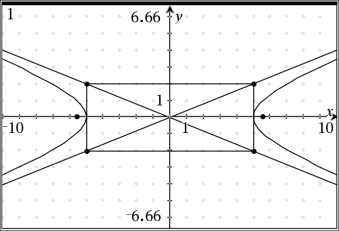
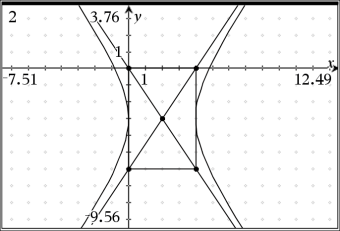
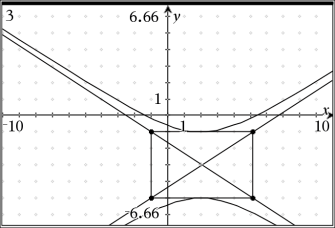
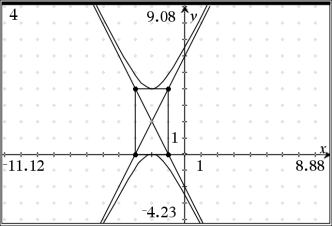
Find the standard form of each conic with the given information.

9. Ellipse: center at (-1,2), focus at (0,2), vertex (2,2).

10. Circle: endpoints of the diameter are (4,-4) and (6, -8).

11. Hyperbola: vertices at (0,1) and (6,1), asymptote at y=.

12. Parabola: vertex at (2,-3) and focus at (2,-4).



5. hyperbola, , (-2,1), (-2,1±, (-2,3) and (-2, -1), y=±

6. parabola, (x+2)2=, (-2,-8), (-), y=-8, (, ) and (, )

7. ellipse, , (2,1), (2±, 1, (5,1) and (-1, 1), (2,) and (2, )

. circle, (x-)2+(y+3)2=57/4, (3/2,-3),

9. 10. (x-5)2+(y+6)2=5 11. 12. (x-2)2=-4(y+3)